

[0477] Furthermore, such instructions may be stored in any memory device, such as semiconductor, magnetic, optical or other memory devices, and may be transmitted using any communications technology, such as optical, infrared, acoustic, radio, microwave, or other transmission technologies. It is expected that such a computer program product may be distributed as a removable medium with accompanying printed or electronic documentation (e.g., shrink wrapped software), preloaded with a computer system (e.g., on system ROM, EPROM, EEPROM, or fixed disk), or distributed from a server or electronic bulletin board over the network (e.g., the Internet or World Wide Web). Of course, some embodiments of the invention may be implemented as a combination of both software (e.g., a computer program product) and hardware. Still other embodiments of the invention are implemented as entirely hardware, or substantially in software (e.g., a computer program product).

[0478] It should be noted that dimensions, sizes, and quantities listed herein are exemplary, and the present invention is in no way limited thereto. In an exemplary embodiment of the invention, a patch-sized fluid delivery device may be approximately 6.35 cm (~2.5 in) in length, approximately 3.8 cm (~1.5 in) in width, and approximately 1.9 cm (~0.75 in) in height, although, again, these dimensions are merely exemplary, and dimensions can vary widely for different embodiments.

[0479] While the principles of the invention have been described herein, it is to be understood by those skilled in the art that this description is made only by way of example and not as a limitation as to the scope of the invention. Other embodiments are contemplated within the scope of the present invention in addition to the exemplary embodiments shown and described herein. Modifications and substitutions by one of ordinary skill in the art are considered to be within the scope of the present invention.

What is claimed is:

1. A system for controlling a wearable medical device, the system comprising:

an intermediate transceiver comprising:

short-range reception circuitry for, over a given range, receiving signals from the wearable medical device;

short-range transmission circuitry for, over the given range, transmitting signals to the wearable medical device;

longer-range transmission circuitry for, over a longer range exceeding the given range, transmitting the received signals to a user interface located remotely from the patient, longer-range reception circuitry for, over the longer range, receiving signals from the user interface; and

interface reception circuitry for receiving signals from the intermediate transceiver;

wherein the user interface comprising:

interface transmission circuitry for transmitting signals to the intermediate transceiver.

2. A system in accordance with claim 1, wherein the interface reception circuitry includes circuitry for receiving signals directly from the wearable device, and wherein the interface transmission circuitry includes circuitry for transmitting signals directly to the wearable device.

3. A system in accordance with claim 1, the system further comprising memory for logging received data.

4. A system in accordance with claim 1, the system further comprising a processor for analyzing received data for the presence of a fault condition.

5. A system in accordance with claim 1, wherein the fault condition comprising an occurrence of an event wherein the intermediate transceiver is separated from the wearable medical device by more than the given range.

6. A system according to claim 1, further comprising a circuitry that is both the short-range reception circuitry and the longer-range reception circuitry.

7. A system according to claim 1, wherein the short range circuitry is adapted to receive signals from multiple medical devices.

8. A system according to claim 1, wherein the medical devices include one or more implanted devices.

9. The system of claim 1, wherein the external medical device is a wearable medical device.

10. The system of claim 9, wherein the longer-range reception circuitry is configured to, over the longer range, receive control signals from the user interface, the control signals containing control information for controlling the external medical device; and wherein the short-range transmission circuitry is configured to, over the given range, transmit the control signals to the external medical device.

11. A system in accordance with claim 9, wherein the interface reception circuitry includes circuitry for receiving signals directly from the pump, and wherein the interface transmission circuitry includes circuitry for transmitting signals directly to the pump.

12. The system in accordance with claim 1, wherein the alarm condition further includes a flow occlusion or an air bubble detected in the pump.

13. The system of claim 9, wherein the short-range reception circuit is configured to, over a given range, receive signals from the pump, the received signals containing data relating to a volume of fluid delivered by the pump and relating to the alarm condition; and

wherein the longer-range transmission circuitry is configured to, over a longer range exceeding the given range, transmit the received signals to an interface for monitoring the volume of fluid delivered and the alarm condition.

14. The system of claim 1, wherein the external medical device is a wearable medical device comprising a patch-sized pump worn on a subject for delivering fluid to the subject.

15. The system of claim 14, wherein the longer-range reception circuitry is configured to, over the longer range, receive control signals from the user interface, the control signals containing control information for controlling the external medical device; and

wherein the short-range transmission circuitry is configured to, over the given range, transmit the control signals to the external medical device.

16. A system in accordance with claim 14, wherein the interface reception circuitry includes circuitry for receiving signals directly from the pump, and wherein the interface transmission circuitry includes circuitry for transmitting signals directly to the pump.

17. The system of claim 14, wherein the short-range reception circuit is configured to, over a given range, receive signals from the pump, the received signals containing data relating to a volume of fluid delivered by the pump and relating to the alarm condition; and